

Amendments to the Claims

1. (Currently Amended) A drive pin for the fastening of a material to a sheet-metal framing member with an automatic nailer, said drive pin comprising:

a substantially cylindrical shank, a first portion of which has having a base diameter;

a head coupled to said shank;

a knurl rolled upon a second portion of said shank, said knurl having a plurality of substantially parallel spiral grooves, wherein said spiral grooves have a minor diameter less than said base diameter, and wherein each of said spiral grooves subtends an angle of at least 15 degrees relative to an axis of said shank; and

a ~~ballistic~~ bullet-shaped tip coupled to said first portion of said shank and configured to penetrate said material and said sheet-metal framing member under force of said automatic nailer.

2. (Original) A drive pin as claimed in claim 1 wherein said spiral-groove angle is no greater than 30 degrees relative to said shank axis.

3. (Original) A drive pin as claimed in claim 2 wherein said spiral groove angle is substantially 26 ± 2 degrees relative to said shank axis.

4. (Original) A drive pin as claimed in claim 1 wherein:
adjacent ones of said spiral grooves are separated by spiral ridges;

each of said spiral grooves and ridges has a substantially equal length; and

each of said spiral ridges is substantially unbroken throughout said length.

5. (Previously Amended) A drive pin as claimed in claim 4 wherein:

said base diameter has a range of 0.0625 to 0.125 inch; and
said spiral ridges have a major diameter greater than said base diameter.

6. (Original) A drive pin as claimed in claim 5 wherein:
said base diameter is 0.098 ± 0.003 inch;
said minor diameter is 0.084 ± 0.003 inch; and
said major diameter is 0.112 ± 0.003 inch.

7. (Original) A drive pin as claimed in claim 5 wherein:
said base diameter is 0.110 ± 0.003 inch;
said minor diameter is 0.096 ± 0.003 inch; and
said major diameter is 0.124 ± 0.003 inch.

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8. (Original) A drive pin as claimed in claim 5 wherein:
said spiral grooves and ridges together form a plurality of threads; and
each of said threads is rolled full upon said shank.

9. (Previously Amended) A drive pin as claimed in claim 1 wherein, when said material is sheet metal, said knurl is rolled tight to said head.

10. (Previously Amended) A drive pin as claimed in claim 1 wherein, when said material is gypsum sheathing, said head is a cupped bugle head.

11. (Original) A drive pin as claimed in claim 1 wherein:
said knurl has at least seven of said spiral grooves; and
each of said spiral grooves has an independent start.

12. (Original) A drive pin as claimed in claim 11 wherein said knurl has no more than fourteen of said spiral grooves.

13. (Currently Amended) A construction assembly effected by an automatic nailer, said construction assembly comprising:

a sheet-metal framing member;

a material attached to said sheet-metal framing member; and

a drive pin attaching said material to said sheet-metal framing member, said drive pin comprising:

a substantially cylindrical shank;

a head coupled to said shank;

a knurl formed of a plurality of threads rolled full upon said shank to produce a plurality of substantially parallel spiral grooves, wherein each of said spiral grooves subtends an angle of no less than 15 and no greater than 30 degrees relative to an axis of said shank; and

a ballistic bullet-shaped tip coupled to said shank and configured to penetrate said material and said sheet-metal framing member under force of said automatic nailer.

14. (Original) A construction assembly as claimed in claim 13 wherein said spiral-groove angle is substantially 26 ± 2 degrees relative to said shank axis.

15. (Previously Amended) A construction assembly as claimed in claim 13 wherein said sheet-steel framing member has a thickness of 0.0179 to 0.0966 inch.

16. (Original) A construction assembly as claimed in claim 15 wherein said sheet-steel framing member has a thickness of no more than 0.0428 inch.

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17. (Original) A construction assembly as claimed in claim 13 wherein:

said material is a sheet metal; and
said knurl is rolled tight under said head.

18. (Original) A construction assembly as claimed in claim 13 wherein:

said material is gypsum sheathing; and
said head is a cupped bugle head.

19. (Original) A construction assembly as claimed in claim 13 wherein:

said knurl has at least seven and no more than fourteen of
said spiral grooves;
adjacent ones of said spiral grooves are separated by spiral
ridges;
each of said spiral grooves and ridges has a substantially
equal length; and
each of said spiral ridges is substantially unbroken
throughout said length;

20. (Currently Amended) A drive pin for the fastening of a
material to a sheet-metal framing member with an automatic
nailer, said drive pin comprising:

a substantially cylindrical shank having a base diameter in a
range of 0.0625 to 0.125 inch;

a head coupled to a first end of said shank;

a knurl formed of at least seven and no more than fourteen
substantially parallel spiral grooves having a minor diameter
less than said base diameter, wherein adjacent ones of said
spiral grooves are separated by substantially unbroken spiral
ridges having a major diameter greater than said base diameter,
and wherein said spiral grooves and ridges together form a
plurality of threads rolled full upon a portion of said shank at

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an angle of substantially 26 ± 2 degrees relative to an axis of said shank;

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a ~~ballistic~~ bullet-shaped tip coupled to a second end of said shank and configured to penetrate said material and said framing member under force of said automatic nailer.
